



River Corridor Closure Project

Recovery Act Weekly Report

For the week ending May 9, 2010

Contract DE-AC06-05RL14655

Protecting the Columbia River

Overview

Background Summary of Projects that Washington Closure Hanford (WCH) will accomplish using ARRA funds (pending definitization of scope and contract modifications).

A. The Environmental Restoration Disposal Facility (ERDF)

ERDF is the hub of the WCH scope of work and supports a major portion of other Hanford contractor (OHC) waste disposal. Wastes collected from sites around the Hanford complex are brought to ERDF for treatment and disposal. WCH operates the ERDF and is currently using ARRA funds to upgrade and expand its capabilities to meet the needs of Hanford's accelerating mission.

B. The 618-10 Burial Grounds

The trenches at 618-10 have long been regarded as some of Hanford's worst waste sites. Using ARRA funds, WCH will characterize the site. Intrusive and non-intrusive techniques will be used, and the subsequent analysis of data will enable the project to pursue remediation of the site safely and effectively.

C. The 618-11 Burial Grounds

Along with 618-10, the 618-11 Burial Grounds are among the biggest challenges faced by WCH using ARRA funds. The 618-11 characterization work will require special care because of its proximity to the Energy Northwest Generating Facility, north of the 300 Area.

D. Waste Site Remediation

WCH is employing ARRA funds to clean up many failed waste sites not originally part of its contract. Sites in the 100-F and IU 2&6 segments 1&2 are proposed for waste site remediation in the two-year period starting in October 2009.

E. Confirmatory Sampling of other new sites

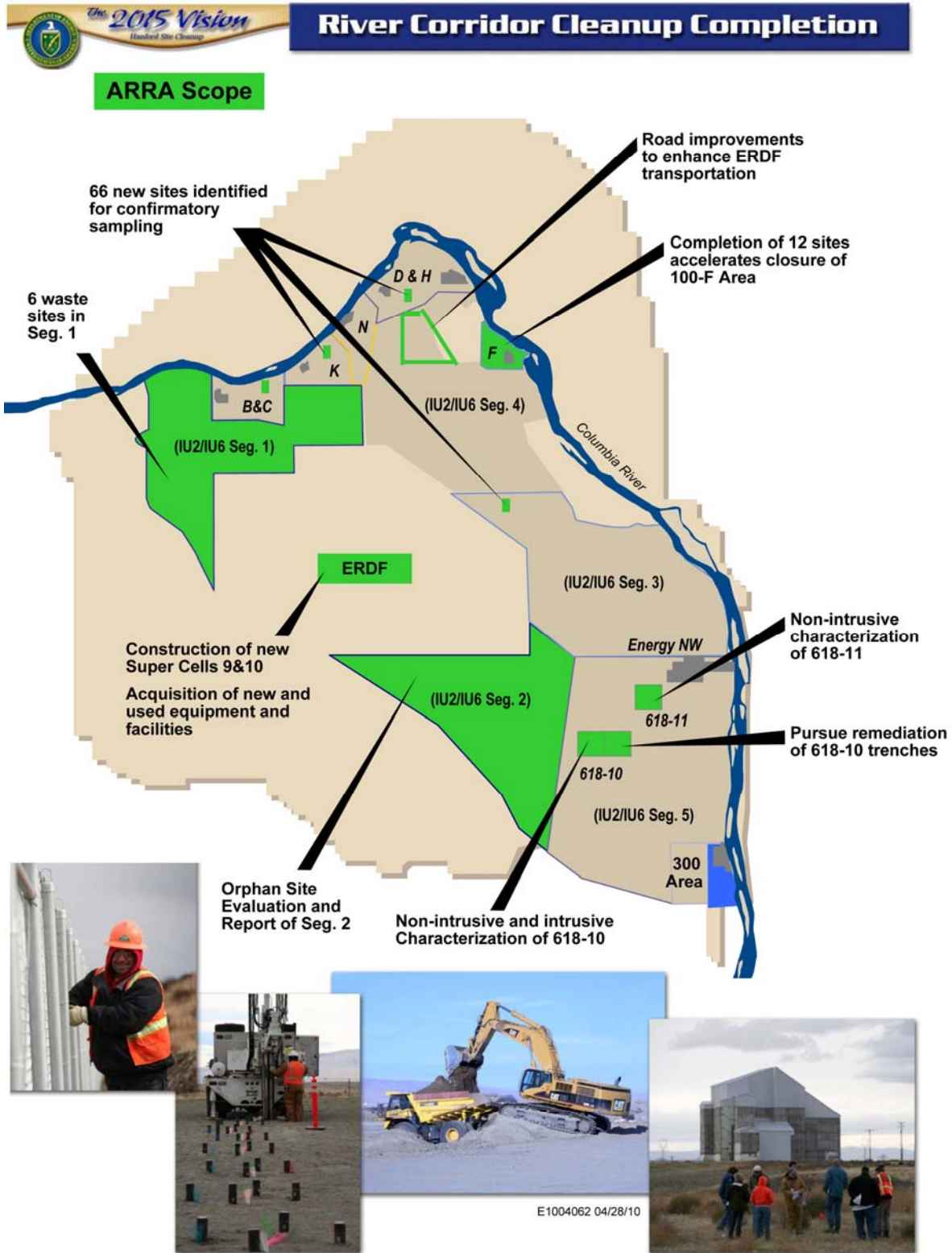
WCH is proposing to complete the early sampling process of 66 potential waste sites using ARRA funds. Confirmatory sampling is performed for sites that require additional information for determining if the site requires remediation.

This weekly report will provide evidence of these activities as they occur in support of ARRA.

The following figure illustrates the overall scope of WCH's ARRA projects.



Overview (Continued)



Safety

Safety Accomplishments

As of March 28, 2010, WCH and its subcontractors have worked more than 172,460 hours of ARRA scope with no safety incidents.

Hazard Reductions

The River Corridor Closure Project's "Take 5 for Safety" is used to share safety information and lessons learned with all WCH employees. Last week's edition focused on the importance of having access to, reading, understanding, and complying with manufacturers' operator and user manuals.

WCH employees use a variety of methods to perform safe and compliant cleanup of the river corridor. All of the equipment used, even if purchased, leased, or rented for just a few days, is required to have a manufacturer's operator or user manual with it when the equipment arrives on site.

Employees need to be trained on the operation, safety features, and limitations of the equipment.

This critical information is found in the user manual. Workers who operate portable power tools energized through temporary electrical power on construction sites need to ensure the ground fault circuit interrupter (GFCI) is tested daily. The manufacturer's manuals must be consulted in order to find out if the equipment needs to be grounded. If grounding is required, it must be grounded by a qualified electrician.

Employees who operate hydraulic-powered tools (e.g., high-torque wrenches used in demolition or maintenance activities) need to understand whether the tool can be used hands free or if the manufacturer requires a specific device for securing the tool during operation.

Many activities require employees to work at elevated heights using scissor or aerial boom lifts. The manufacturer's manuals provide information on wearing fall protection and where to appropriately attach an anchor connector to prevent the operator from falling and being injured.

The manuals also provide information on proper equipment setup, including how to demarcate the work area to prevent co-workers from approaching the rotating superstructure during movement. The user manual provides safe travel speeds on even and uneven surfaces, emergency and safe shutdown requirements during use in high wind, and distance to safely operate around overhead utilities.

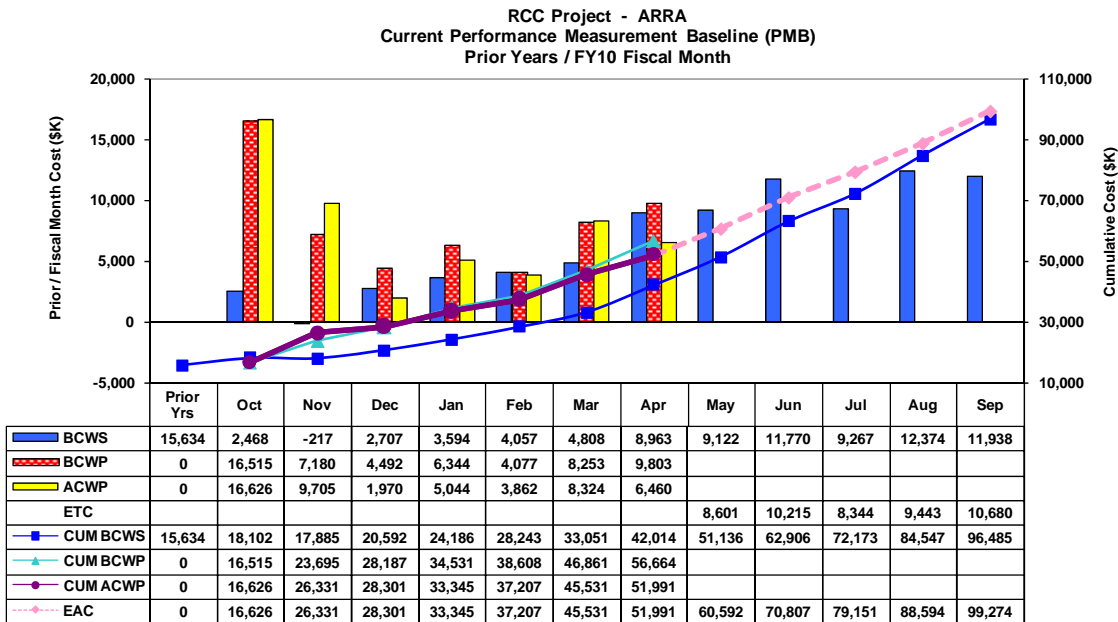
The bottom line is to understand how each piece of equipment operates, and to know the safety features and limitations. Employees are advised to take the extra few minutes to read the manuals, and if they don't understand something, stop and contact their supervisor or project safety representative for clarification.



Cost/Contract Status

Contract Mod #	Date	Scope	Obligated (\$M) (Inception to Date)	Not to Exceed (\$M) (Inception to Date)
099	4/9/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$28.0
105	4/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$203.0	\$44.5
126	7/23/09	H.37 Clause - Reporting Requirements	N/A	N/A
139	9/3/09	ERDF Cell Expansion & Upgrades; 618-10 NIC	\$253.6	\$44.5
142	9/30/09	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	\$253.6	\$123.8
174	2/22/10	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	\$248.2	\$123.8
182	3/25/10	ERDF Cell Expansion & Upgrades; 618-10 NIC; Phase 2 Scope	\$248.2	\$155.8
185	4/19/10	Phase 1 and Phase 2 Scope	\$248.2	\$178.0
192	4/27/10	Phase 1 and Phase 2 Scope	\$253.6	\$178.0

Contract Modification #192 re-obligated \$5.4M to the contract that had previously been de-obligated.



ARRA Actuals (includes Proposals 1 and 2)

Apportionment Number	Apportionment Title		Apr 2010	Inception To Date	Cost Authority
RL-0041.R1.2	ERDF Cell Expansion	PMB	3,911	37,114	139,072
RL-0041.R2	River Corridor Soil & Groundwater (618-10)	PMB	2,550	14,877	38,907
Sub Total		PMB	6,461	51,991	177,979
Fee			204	2,658	
Total			6,665	54,649	

* PMB is the Performance Measurement Baseline.



ERDF

Super Cells 9 and 10 Construction

TradeWind Services and its prime subcontractor, DelHur Industries, have completed mass excavation work of super cell 10. Final grading of the super cell will begin next week. The southeast ramp of the super cell remains and will be used during the construction of the liner and leachate collection systems for super cells 9 and 10.



TradeWind Services/DelHur Industries personnel excavate the final portion of an estimated 1.675 cubic yards of soil from super cell 10 at the Environmental Restoration Disposal Facility.

ERDF (Continued)



This photo was taken May 5, the day before mass excavation of super cell 10 was completed at the Environmental Restoration Disposal Facility.

The project team also began placing the admix layer of the liner system for super cell 9. The admix layer is made up of a soil/bentonite material manufactured at an onsite pug mill. The liner system collects and removes liquid, or leachate, as it drains through the waste materials. The test pad was constructed with the materials, equipment, and procedures that will be used to construct the admix layer of the actual liner system. The liner system consists of the admix layer, a leachate collection layer, a leak detection layer, and two high-density polyethylene (HDPE) liners covered with a 3-foot protective soil layer.

Facility and Equipment Upgrades

ELRFowler continues design work of ERDF's new operations and maintenance facilities. ELRFowler, which is a joint venture between ELR Consulting and Fowler General Construction, also continues to work on contract submittals (e.g., health and safety, quality, scheduling).

Upgrades to the transportation truck maintenance facility include two additional truck bays, a large concrete pad, an exterior awning that will cover two smaller concrete pads, and a conference room. Upgrades to the container maintenance facility include a large container repair line, a maintenance shop, a weld area, a lunch area, and an exterior awning over a

ERDF (Continued)

concrete pad. Upgrades to the equipment maintenance facility include two service lines, an operational storage facility, a large concrete pad, and an exterior awning over a smaller concrete pad.

WCH has completed reviewing the final design of the new fueling station submitted by Sage Tech/WH Pacific. WCH will issue a construction contract, and construction will begin mid- to late summer. Sage Tech is a small business based in Richland, Washington.

WCH completed reviewing Columbia Engineers and Constructors' 90% design of ERDF's new septic system. Columbia Engineers and Constructors, a small business based in Richland, Washington, will incorporate WCH's comments and submit the final design in late May.

WCH received a final draft of Pacific Northwest National Laboratory's (PNNL's) report for its proof-of-concept demonstration of a container tracking system to be used at ERDF. PNNL will begin reviewing the report next week. As part of the demonstration, PNNL attached radio frequency identification and global positioning system tags to waste containers to show how accurately the system can track waste shipments and container location, as well as generate maintenance reports.

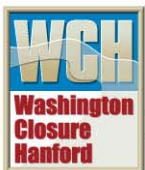
WCH will conduct a preconstruction meeting with local subcontractor George A. Grant. The Richland, Washington-based company will install a lighting system at ERDF's recently upgraded transportation yard. The yard is used for truck-and-trailer combinations and other equipment.

Hanford subcontractor Mission Support Alliance (MSA) continues design and engineering preparations for repair work on three Hanford Site roads. The roads are used to transport waste material to ERDF.

Powers Equipment Company of nearby Pasco, Washington, is scheduled to deliver a 50-ton forklift on May 11.

Upcoming Activities

- Continue to manufacture admix and place in super cell 9.
- Work on final grading of super cell 10.
- Review PNNL's final report on proof-of-concept demonstration of the container tracking system.



Profile

Anna Cooke gets some funny looks while working at the Environmental Restoration Disposal Facility (ERDF).

Cooke is a heavy equipment operator for DelHur Industries, which has joined forces with WCH prime subcontractor TradeWind Services to excavate super cell 10 and build the liner and leachate collection systems for super cells 9 and 10. The work is part of a \$100 million expansion and upgrade of ERDF funded by the American Recovery and Reinvestment Act.

Cooke can operate almost every piece of yellow steel that roams the facility. She runs a sheepsfoot compactor, roller compactor, wheel dozer, bulldozer, and the massive dump trucks that buzz up and down the super cells.

So, why the funny looks?

"It's my pigtails," Cooke said with a laugh. "When the tour buses are out here, I see a lot of people looking my way. I'm sure they're thinking, 'hey, look at that little girl with pigtails driving that big machine.' I get a kick out of it."

CJ Hamlin also gets her share of funny looks. At barely 5 feet tall, she doesn't exactly fit the stereotype of a heavy truck driver. In fact, she even needed modifications to her truck's seat in order to reach the pedals.

"When I tell people what I do for a living," Hamlin said, "they're like, 'huh? You do what?'"

There's no denying, however, that Cooke and Hamlin have more than carried their weight since they were hired by DelHur in 2008 during the construction of cells 7 and 8.

"Anna and CJ do excellent work," said Roger Hoven, a DelHur supervisor at ERDF. "They can do anything anybody else can do. They're valuable members of our team."

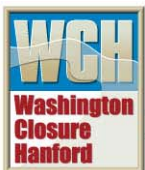
Still, Cooke said women working in the construction business often need to go the extra mile to prove they belong.

"I definitely think we need to work a little harder than the guys," she said. "But if you work hard and work safe, you'll fit right in."

Cooke is a native of Bend, Oregon. On the recommendation of a family friend, she landed a job paving roads in central Oregon. But when her husband, Jerrod, took a job as a heavy equipment mechanic with DelHur, she followed him to the Hanford Site.

Hamlin lives in Newman Lake, Washington, just east of Spokane, with her husband and two children. She ran a pilot car business for heavy equipment transport from 1997 to 2005. She often was asked to load and unloaded heavy equipment, and later learned to operate the equipment.

While Cooke likes to operate different machines, Hamlin sticks to the Payhaulers. Surprisingly, she said it was not too difficult to master.



Profile (Continued)



Anna Cooke, left, operates heavy equipment, and CJ Hamlin drives a Payhauler for DelHur Industries, which recently completed mass excavation of super cell 10 at the Environmental Restoration Disposal Facility.

"You just need to get used to the width, but once you do that it's not much different than driving a car," she said. "But you need to be concentrating at all times. Safety is our top priority." Hamlin, who is a teamster, said the most difficult part of the job is being away from her family.

She and Cooke both have fifth-wheel trailers in nearby Benton City, and she commutes home on the weekends.

TradeWind/DelHur recently completed the excavation of super cell 10 – a job that called for removing an estimated 1.7 million cubic yards of soil. Cooke and Hamlin will now focus on transporting the admix (soil/clay material) used for the liner systems for super cells 9 and 10. Both women said they enjoy working at ERDF, even when the temperature hits 105°F or the wind is blowing.

"I totally love it," Hamlin said. "DelHur is an awesome company and the people are the best. There's really nothing I'd rather be doing."

618-10 Burial Ground

618-10 Non-Intrusive Characterization/Trench Remediation Project

Nonintrusive characterization activities continue at the 618-10 Burial Ground. Measurements have been collected for 80 of 100 cone penetrometers in the trench area and 320 of 376 in the vertical pipe unit (VPU) area.

The 618-10 Burial Ground operated from 1954 to 1963 and received low- and high-level radioactive waste from 300 Area laboratories and fuel development facilities. The burial ground consists of five groups of trenches and 94 VPUs. The low-activity wastes were primarily disposed in trenches, while the moderate- and high-activity wastes were disposed in the VPUs.

The VPUs typically were constructed by welding five bottomless drums together and buried vertically about 10 feet apart. WCH is obtaining radiological characterization data of the VPUs and trenches using a multi-detector probe (MDP) designed for measuring a wide range of radiation sources. The MDP is inserted into the cone penetrometers to measure radiation sources.

Soil sampling began at the burial ground. Four of 10 soil samples were collected. Collecting and analyzing soil samples will allow the team to assess the vertical distribution of contaminants in the soils adjacent to and below the VPUs. To collect the samples, a cone penetrometer is driven adjacent to and approximately 4 feet below a selected VPU. A plastic sleeve is used to contain the sample, which is taken to a table-mounted glove bag for transfer to sample bottles for processing.

618-10 Burial Ground (Continued)



The project team drives a cone penetrometer to obtain a soil sample at the 618-10 Burial Ground. The cone penetrometer is driven about 2 feet below the vertical pipe unit.

618-10 Burial Ground (Continued)



A sampling tube is used to collect soil during nonintrusive characterization activities at the 618-10 Burial Ground.

618-10 Burial Ground (Continued)



A plastic sleeve is used to contain the soil, which will then be transferred to a glove bag for sample collection to a sample bottle.

Project startup activities continue for intrusive characterization. Test pits will be excavated through a series of burial trenches to gather information about the types and quantities of wastes, and the level of contamination. The information will help in the development of a safe and effective remediation strategy.

Work packages for intrusive characterization mockups have been completed, and work continues on the development of procurement packages for trench remediation labor and equipment.

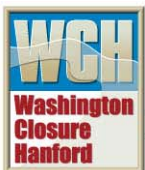
Upcoming Activities

- Continue radiological characterization activities in the VPU area.
- Continue to develop procurement packages for trench remediation labor and equipment.
- Complete project startup for intrusive characterization mockups.

618-10 Burial Ground (Continued)

Video

[Soil sampling at the 618-10 Burial Ground](#)



100-F Area

WCH continues to evaluate proposals from four small disadvantaged businesses for the remediation of the 12 waste sites at the 100-F Area. WCH also continues work on waste profiles, and the air monitoring plan is undergoing internal review.

The \$4 to \$5 million project will involve the excavation of radioactive and hazardous soil and debris and the packaging of this material into shipping containers. Miscellaneous waste such as drums, bottles, tanks, or vessels may require repackaging and special handling prior to shipping. Oversized debris may require size reduction to facilitate waste loading.

The remediation sites are:

- 100-F-26:4 (process sewer pipeline section)
- 100-F-26:7 (sodium dichromate and sodium silicate pipelines)
- 100-F-44:8 (fuel oil pipelines)
- 100-F-44:9 (process fuel pipeline section)
- 100-F-45 (buried riverbank effluent pipeline)
- 100-F-47 (electrical substation foundation)
- 100-F-48 (coal pit debris)
- 100-F-49 (maintenance garage lube pit foundation, pipelines, drywells)
- 100-F-51 (fish laboratory footprint, pipelines)
- 100-F-55 (contaminated ash layer)
- 100-F-56 (scattered surface debris, stains)
- 100-F-57 (buried pipeline cradle debris)
- 100-F-58 (asbestos-containing surface debris).

The 100-F Area is the home to the F Reactor, which operated from February 1945 to June 1965. In 2003, it became the third Hanford plutonium production reactor to be placed in interim safe storage. Most of the cleanup work at the 100-F Area has been completed. However, during the course of cleanup, the 12 additional waste sites were discovered.



100-F Area (Continued)



A Washington Closure subcontractor works on the installation of electrical conduit to support mobile offices at the 100-F Area. Work to remediate 12 additional waste sites at the 100-F Area is scheduled to begin this summer.

IU 2 & 6 Segment 1

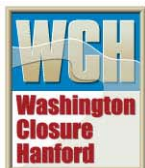
Work continues on waste site-specific verification closeout sample plans to determine the number and location of waste site closeout samples, including field quality control samples, sampling methodologies, analyte lists, and analytical methods. Once the work instructions are reviewed and approved by the DOE, Richland Operations Office, and the U.S. Environmental Protection Agency, verification closeout samples will be collected for laboratory analysis.

Last month, remediation of five IU 2 & 6 Segment 1 waste sites discovered during the 2008 orphan site evaluation was completed. The remediation sites are:

- 600-341 (four areas that contained dry cell battery remnants and/or battery debris)
- 600-343 (residual ash from burned material and dumped asphalt in excavation trench)
- 600-344 (stained area)
- 600-345 (stained area with oil filters)
- 600-346 (four small fly ash dump areas with metal debris).

Earlier this year, a global positioning environmental radiological survey indicated that an additional site, 600-342, did not require additional remediation.

IU 2 & 6 Segment 1 encompasses about 23 square miles of the northeastern portion of the Hanford Site, away from the nine surplus plutonium production reactor areas. Segment 1 sites were unique in the fact they were used primarily for housing and support areas. The sites were small and contained mostly surface debris.



Confirmatory Sampling

The project team continues to develop sampling instructions for waste sites at the 100-D and 100-IU 2/6 Areas, along with a new site in the 100-F Area. This includes conducting historical research, consulting regulatory documents, developing a list of contaminants of potential concern to be sampled, and determining potential sample locations for review by DOE and Hanford Site regulators. More than 50% of the confirmatory work instructions have been issued, which includes DOE and regulator approval. All of the work instructions for the 100-K Area have been approved.

The team also is developing Remove, Treat, and Dispose (RTD) memos for 22 sites that have been determined to require waste site remediation. The memos provide a basis for developing the design for waste site cleanup. All of the RTD memos have been issued.

The request for proposal (RFP) for the confirmatory sampling contractor was issued April 20, and a pre-bid meeting was held last week. The purpose of the pre-bid meeting was to develop a common understanding of the remediation scope of work and provide the best available information to support bids, which are due on May 17.

The scope of the RFP is to support implementation of the confirmatory work instructions (e.g., excavation and sampling). The contract is scheduled to be awarded in May, with field work beginning in July. Confirmatory sampling will involve trenching, excavation, hot/cold tapping, backfilling, and sampling to determine the nature and extent of any contamination present.

Sites that pass the confirmatory sampling process will be closed out and no further action will be required under the existing interim record of decision. Those that fail will be recommended for remediation to meet regulatory standards.



General

Mentoring/Training

No significant mentoring/training events this week.

Media, Visits, Press Releases

No significant media events this week.

Contracting Actions

No significant contracting actions this week.

